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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

MN

Office Action Summary	Application No.	Applicant(s)
	10/661,734	FEDYK ET AL.
	Examiner Mitra Tashakkori	Art Unit 2109

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 12 September 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-17 is/are rejected.
- 7) Claim(s) 1-17 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 12 September 2003 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>05/09/2005</u> | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| | 6) <input type="checkbox"/> Other: _____ |

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1. This is in response to application filed on September 12, 2003, in which claims 1-17 are presented for examination.

Status of Claims

2. Claims 1-17 are pending, of which claims 1, 7, 10, and 14 are in independent form.

Drawings

3. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "VPN A", "@ VPN A", "VPN B" and "@ VPN B" in Figure 1; "Site 1 @ VPN A", "Source", "Site 2 @ VPN B", "20", "22", "23", "24", "25", "26", "27", "28", "Site 3 @ VPN A", "Destination" and "Site 4 @ VPN B" in Figure 2; "33" in Figure 3; and "209" in Figure 5. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of

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the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

5. The drawings are objected to under 37 CFR 1.83(a) because they fail to show, in Figure 4, that after completing step 106, the process returns to step 105 to wait; in Figure 5, that a "yes" to the question in step 208 results in moving to step 209 before step 210, while a "no" results in moving directly to step 210; and in Figure 5, the steps of downloading the key to the member as well as auto-discovering the other members, as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required

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corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

6. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Specification

7. The abstract of the disclosure is objected to because:

- the first word of sentence 4 is written "AS" and should be "As" instead;
- "Routing Functionality" is not consistently capitalized; and
- "GSA" is defined, but "group SA" is not.

Correction is required. See MPEP § 608.01(b).

8. The disclosure is objected to because of the following informalities:

- the wording of "network architecture capable includes a device" on pg. 4, line 13;
- a missing comma between "devices" and "is provided" on pg. 5, line 9;
- the wording of "Security/Routing device the present invention" on pg. 5, line 28;
- the wording of "be achieved adding a" on pg. 6, line 14;

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- a missing space in the middle of "areidentified" on pg. 6, line 23;
- "the S/R provides" should be "the S/R device provides" on pg. 7, line 1;
- the extra period mark on pg. 7, line 6;
- the wording of "the information need to secure" on pg. 7, line 11;
- the wording of "and one more data security protocol SAs" on pg. 7, line 23;
- a period in the middle of a sentence on pg. 8, line 6;
- the wording of "In general, BGP-4 two systems form" on pg. 9, line 3;
- the wording of "optionally identifiers" on pg. 11, line 20;
- the wording and punctuation of "the member forwards route information optionally encrypting the information using a GSA for the member to the S/R 30, where the route information is distributed to other members optionally encrypted using the GSA" on pg. 11, line 22; and
- the spelling of "tot he" on pg. 12, line 26.

Appropriate correction is required.

9. The incorporation of essential material in the specification by reference to an unpublished U.S. application, foreign application or patent, or to a publication is improper. Applicant is required to amend the disclosure to include the material incorporated by reference, if the material is relied upon to overcome any objection, rejection, or other requirement imposed by the Office. The amendment must be accompanied by a statement executed by the applicant, or a practitioner representing the applicant, stating that the material being inserted is the material previously incorporated by reference and that the amendment contains no new matter.

37 CFR 1.57(f).

Claim Objections

10. The claims are objected to because many of them are crowded too closely to one another, making it difficult to see where one ends and the next begins. Substitute claims with adequate spacing in between claims are required. For example, duplicating the spacing found between claims 1 and 2, on page 14, lines 14-16, to replace the current spacing between any two claims would ensure claims are visually distinct and easily recognizable. See 37 CFR 1.52(b).

11. Claims 1, 10-12, 14 and 17 are objected to because of the following informalities:

- there is no clear indication in the disclosure as to what is meant by a “device” of the autonomous system recited in claim 1. This term is frequently used in the art, but it is unclear which of several standard definitions are to be applied.
- the word “and” is missing before the final limitation of claim 10, on pg. 15, line 17;
- the preamble of claim 11 recites “method of claim 10 including” rather than “method of claim 10 further including,” which is more clear and consistent with other claims;
- the missing colon mark (“：“) at the end of the preamble of claim 12, on pg. 16, line 28;
- the word “and” is missing before the final limitation of claim 12, on pg. 16, line 2;
- the word “and” is missing before the final limitation of claim 14, on pg. 16, line 2;
- the word “system” in claim 14 should be pluralized, on pg. 16, line 11;
- the sub-group of limitations in claim 14 should be indented, on pg. 16, lines 14-18;
- the word “and” is missing from the sub-grouping of limitations describing the “means for providing secure communications” in claim 14, on pg. 16, line 15;
- the phrasing of “routes to each of the autonomous systems in the group to other autonomous system in the group” in claim 14, on pg. 16, line 16, is unclear;

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- the word "system" in claim 15 should be pluralized, on pg. 16, line 20; and
- claim 17 recites auto-discovery means for identifying group members, and it depends on claim 16, which recites a list as the means for identifying group members. Thus, the mechanism for identifying members has already been established in claim 16, so the dependency of claim 17 on claim 16 seems improper.

Appropriate correction is required.

12. Claim 2 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

13. Claim 2 does not offer any additional limitations, but merely refers to claim 1.

Claim Rejections - 35 USC § 112

14. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

15. Claims 14-17 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with

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which it is most nearly connected, to make and/or use the invention.

16. Claim 14 recites a "means for assigning a security association to the group," but the specification relies upon improperly incorporated references to provide essential material regarding these means. Therefore, the disclosure does not enable the function of assigning a security association to a group.

17. Claims 15-17 depend on claim 14 and are also rejected on the same grounds.

18. Further, claim 17 recites auto-discovery means, also not enabled due to the improper incorporation of essential material that enables this function.

19. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

20. Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

21. Claim 1 recites the limitation "the route information received from each member" in line 10 of the claim. There is insufficient antecedent basis for this limitation in the claim.

22. Claim 2-6 depend on claim 1 and are rejected on the same grounds.

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23. Claim 2 is additionally rejected because simply recites "The method of claim 1, wherein the step of reflecting the route information," clearly failing to particularly point out and distinctly claim any intended subject matter.
24. Claim 3 is additionally rejected because the scope of the term "registration request" is unclear, and the specification does not provide insight into the intended meaning of this term.
25. Claim 4 is additionally rejected because it recites the limitation "according to claim 4" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim.
26. Claim 5 is additionally rejected because it recites the limitation "according to claim 5" in line 1 of the claim. There is insufficient antecedent basis for this limitation in the claim.
27. Claim 7 recites "functionality for" various tasks, which is enabled by the disclosure; however, without impermissibly limiting the claim based on the specification, it is not possible to define the metes and bounds of what "functionality" entails.
28. Claims 8 and 9 depend on claim 7 and are rejected on the same grounds.
29. Claim 10 recites the limitation "another coupled device" in line 5 of the claim. There is insufficient antecedent basis for this limitation in the claim. In order to identify "another" device, a first device must have already been identified, and there is no other device recited in the claim.

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30. Claims 11-13 depend on claim 10 and are rejected on the same grounds.

31. Claim 11 is additionally rejected because it recites the limitation "the coupled device" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim. It is unclear whether "the coupled device" is referring to "another coupled device" recited in the previous claim or to some different device, one that has not yet been disclosed.

32. Further, claim 11 is additionally rejected because it recites the limitation "the routing information" in line 4 of the claim. There is insufficient antecedent basis for this limitation in the claim. Given that claim 10 recites "routing information for the one member" and claim 11 recites "routing information associated with the at least one other member," it is unclear which member's routing information is being referred to in the limitation of claim 11 which recites "wherein the routing information is secured."

33. Claim 12 is additionally rejected because it recites the limitation "the routing information" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim. Given that claim 10 recites "routing information for the one member," claim 11 recites "routing information associated with the at least one other member," and both claims recite "the routing information being secured," it is unclear which routing information claim 12 is referring to in the step of "restoring the routing information."

34. Claim 13 is additionally rejected because it recites the limitation "the routing information" in line 2 of the claim. There is insufficient antecedent basis for this limitation in the claim. Given that claim 10 recites "routing information for the one member," and claim 11 recites "routing information associated with the at least one other member," it is unclear which

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routing information claim 13 refers to when building a tunnel “using the routing information.” Further, since both claims 10 and 11 recite “the routing information being secured,” and claim 12 includes the steps of “restoring the routing information” and “forwarding” data “using the restored routing information,” it is unclear whether or not “the routing information” recited in claim 13 refers to the restored routing information used in the forwarding step of claim 12.

35. Claim 14 recites a “means for assigning a security association to the group,” but the specification relies upon improperly incorporated references to provide essential material regarding these means. Therefore, the disclosure does not provide the necessary information to clearly define the scope of this claim. Further, it is unclear whether the claim is intended to define the network, as would be suggested by the preamble, or the “means for providing secure communications,” as is suggested by the second “comprising:” terminology.

36. Claims 15-17 depend on claim 14 and are also rejected on the same grounds.

37. Further, claim 17 recites auto-discovery means, also indefinite due to the improper incorporation of essential material regarding this function.

Claim Rejections - 35 USC § 101

38. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

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39. Claims 7-9 and 14-17 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

40. Claim 7 recites a “device” comprising “security association functionality” and “route reflection functionality,” neither of which is limited to being implemented using hardware. The possibility of being implemented as software is evidenced in the specification on pg. 12, line 6.

41. Claims 8-9 are dependent on claim 7 and are rejected on the same grounds.

42. Claim 14 recites a “network comprising a group of interconnected autonomous systems” and “means for” doing various tasks, those means being comprised of additional “means for” functions. While the autonomous systems themselves are tangible devices, the “means for” functionality is not limited to hardware implementations, as is discussed regarding claim 7. The claim language does not require the autonomous systems to perform any function; rather, they are the objects the function is performed on. Thus, the claim presents functional descriptive material not embodied in a tangible medium, which is non-statutory subject matter.

43. Claims 15-17 depend on claim 14 and are rejected on the same grounds.

Claim Rejections - 35 USC § 102

44. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section

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351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

45. Claims 1-3, 7, and 9-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Hanzlik et al. US 2004/0044891 A1, filed on September 4, 2002.

46. As per claim 1, Hanzlik discloses ***A method of securing communication between at least two members of a group*** as a system and method for secure group communications (pg. 2, [0024]) through the implementation of a Virtual Private Group (VPG) communication system (pg. 2, [0027]). Hanzlik discloses ***wherein each member is an autonomous system*** [*i.e. a collection of systems or devices operating under a single routing policy or domain, therefore able to communicate with one another without the use of the public backbone*] ***comprising one or more devices*** as the capability for group members to exist behind a Network Address Translation (NAT) device (pg. 2, [0028]). Further, Hanzlik provides “capability for interdomain VPG’s,” (pg. 5, [0053]). Interdomain VPG’s are essentially groups having members from different autonomous systems. Hanzlik discloses ***forwarding, to at least one member of the group, a group security association*** [*i.e. a set of information that defines how a group communicates securely, generally including policy and keys for securing communications*] ***corresponding to the group*** as sending a copy of the security policy, as well as a set of shared encryption keys and a membership key, from a policy server to the group nodes, where this information is used to secure group communications (pg. 4, [0043]). Hanzlik discloses ***receiving, from the at least one member of the group, route information enabling communication with each of the one or more devices of the autonomous system corresponding to the member*** as a management feature of the policy server, which manages group membership within its security domain (pg. 4, [0041]). Each node has an identifier, which may be an IP address (pg. 6, [0069]). When a node first

contacts the policy server, its IP address (or that of the NAT device it is behind) is recorded when the node is authenticated (pg. 7, [0075]). Hanzlik discloses ***identifying at least one other member of the group*** as creating a VPG membership list on the policy server, then adding members to that list and establishing secure connections between the policy server and the member nodes (pg. 5, [0060]). Hanzlik discloses ***reflecting the route information received from each member of the group to the at least one other member of the group*** as sending “the membership list from the policy server to each of the group members,” (pg. 5, [0061]) where the membership list presents group members by IP address and is applied to incoming and outgoing packets (pg. 4, [0043]). Hanzlik discloses ***including the step of securing the route information using the group security association*** as establishing secure communications between the policy server and each node using one of the keys sent from the policy server to the node (pg. 4, [0042]). Encryption keys sent from the policy server to the group members are used to secure all communications, and include keys used to communicate with the policy server (pg. 4, [0043]).

47. As per claim 2, ***The method of claim 1, wherein the step of reflecting the route information*** does not further limit the scope of claim 1, and therefore is rejected using the same argument as was used above, to reject claim 1.

48. As per claim 3, Hanzlik discloses ***The method according to claim 1, further comprising the step of receiving a registration request from the at least one member of the group*** as the initial contact by a node asking for a VPG table (pg. 7, [0075]), which includes the IP addresses and security association data for other members of the VPG (pg. 7, [0070]).

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49. As per claim 7, Hanzlik discloses **A device for providing secure communications between at least two members of a group over a backbone** as the policy server and VPG, as discussed above in the analysis of claim 1. Hanzlik discloses **security association functionality for forwarding a group security association of the group to the at least two members of the group** as a function of the policy server, as discussed above in the analysis of claim 1. Hanzlik discloses **route reflection functionality, for identifying at least one of the at least two members of the group, receiving routing information for the at least one of the two members of the group, securing the routing information for the at least one of the two members of the group using the group security association and for forwarding the secured routing information to another one of the at least two members of the group** as another function of the policy server, as discussed above in the analysis of claim 1.

50. As per claim 9, Hanzlik discloses **The device of claim 7 wherein the functionality for identifying at least one of the two members of the group includes a list of members of the group** as a VPG membership list, as discussed in the analysis of claim 1.

51. As per claim 10, Hanzlik discloses **A method for communicating securely by one member of a group with at least one other member of the group over a backbone** as discussed above in the analysis of claim 1. Hanzlik discloses **receiving, at the one member, a group security association corresponding to the group** as discussed above in the analysis of claim 1. Hanzlik discloses **forwarding, by the one member to another coupled device [interpreted as referring to the source of the group security association, i.e. the policy server], routing information for the one member** as discussed above in the analysis of claim 1. Hanzlik discloses **the routing information being secured**

using the group security association of the group as discussed above in the analysis of claim 1.

52. As per claim 11, Hanzlik discloses ***The method of claim 10 including the steps of: receiving, at the one member, from the coupled device, routing information associated with the at least one other member of the group, wherein the routing information is secured using the group security association of the group*** as receiving a member list with IP addresses of other members, as discussed above in the analysis of claim 1.

53. As per claim 12, Hanzlik discloses ***The method of claim 11 further comprising the steps of restoring [i.e. decrypting] the routing information using the group security association of the group*** as the inherent result of receiving information from the policy server via a secure connection. Hanzlik states that “VPG nodes receive group membership information, and other VPG parameters, from [the] policy server,” and that they “use this information to encrypt and decrypt traffic,” (pg. 4, [0043]). Hanzlik discloses ***securing a packet for transmission to the at least one other member of the group using the group security association to provide a secured packet*** as the step where a member uses the security policy and group membership keys to encrypt data transmitted to another member node (pg. 5, [0053]). Hanzlik discloses ***forwarding the secured packet to the at least one other member using the restored routing information*** as the step where the member node applies the group membership list to all packets being sent or received (pg. 4, [0043]).

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54. As per claim 13, Hanzlik discloses ***The method of claim 12 wherein the step of forwarding includes building a tunnel*** [i.e. a secure connection characterized by the use of a key to encrypt and decrypt data transferred between two points] ***to the at least one other member of the group using the routing information and the group security association*** as the use of the membership list and group keys, as discussed above in the analysis of claim 12, for symmetric encryption (pg. 3, [0034]).

55. As per claim 14, Hanzlik discloses ***A network comprising: a group of interconnected autonomous system*** as discussed above in the analysis of claim 1. Hanzlik discloses ***means for providing secure communications between at least two of the autonomous systems in the group*** as discussed above in the analysis of claim 1. Hanzlik discloses ***means for assigning a security association to the group, wherein communications between members of the group are secured using the security association*** as a function of the policy server, where it is able to create security policy rules and a common set of encryption keys, then transmit that information to group members, who then use the policy and keys to encrypt and decrypt all communications, as discussed above in the analysis of claim 1. Hanzlik discloses ***means for reflecting routes to each of the autonomous systems in the group to other autonomous systems of the group, wherein the reflected routes are secured using the security association of the group*** as sending member data and membership lists containing address data from the policy server to each group member, as discussed above in the analysis of claim 1.

56. As per claim 15, Hanzlik discloses ***The network according to claim 14, wherein the means for reflecting routes to each of the autonomous system in the group includes means for identifying each of the autonomous systems of the group*** as the

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identification information for each of the member nodes, stored with group security association information within a group membership table, as discussed above in the analysis of claim 3.

Claim Rejections - 35 USC § 103

57. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

58. Claims 4-6, 8, and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanzlik as applied to claims 1-3, 7, and 9-15 above, and further in view of Mukherjee et al. US 2004/0006708 A1, hereinafter referred to as Mukherjee.

59. As per claim 4, Hanzlik discloses ***The method according to claim 4 [interpreted to mean claim 3]*** as discussed above in the analysis of claim 3, but does not disclose ***wherein the registration request includes a list including the at least one other member of the group.*** However, Mukherjee discloses these additional limitations that are not disclosed by Hanzlik. Mukherjee discloses a registration process where the “subscriber identifies a group of users authorized” and states this information may be provided in the form of a list of members (Mukherjee, pg. 3, [0040]). It would be obvious to one skilled in the art to modify Hanzlik to include populating the member list, once created on the policy server (pg. 5, [0060]), using a member list information provided by a member node when first connecting to the policy server, allowing a member node the authority to determine who is an authorized member (Mukherjee,

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pg. 4, [0048]).

60. As per claim 5, Hanzlik, in view of Mukherjee, discloses ***The method according to claim 5 [interpreted to mean claim 4]***, as discussed above in the analysis of claim 4, but does not disclose ***wherein the step of identifying the at least one other member includes the step of forwarding a request for routing information to the at least one other member, the request including an identifier for the group.*** However, Mukherjee discloses these additional limitations that are not disclosed by Hanzlik. Mukherjee discloses an invitation sent to a second member, where the invitation is simply a mechanism used to notify the second user of the VPN set up by the first user. To join, the second user must respond to the invitation (Mukherjee, pg. 5, [0055]). The invitation is effectively the request for routing information, as the session cannot be established without a response. It would be obvious to one skilled in the art to modify Hanzlik to include populating the member list, once created on the policy server (pg. 5, [0060]), by sending out a request for routing information for members of an identified or named group, making the process more automated and therefore easier to use (Mukherjee, pg. 6, [0076]).

61. As per claim 6, Hanzlik discloses ***The method according to claim 4 [interpreted to mean claim 3]***, as discussed above in the analysis of claim 3, but does not disclose ***wherein the step of identifying includes the step of auto-discovering the at least one other member of the group in response to the registration request by issuing a request for routing information to other devices in the network, the request for routing information including an identifier for the group.*** However, Mukherjee does disclose these further limitations. Mukherjee states, “Augmenting the P2P-VPN with automatic network configuration procedures can provide easy networking to users without much knowledge about

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networking," (pg. 6, [0076]). It would be obvious to one skilled in the art to modify Hanzlik to determine group members automatically, using auto-discovery means that are well known in the art, to populate the member list (pg. 5, [0060]) as one step in automatic configuration of a network, for the reasons disclosed by Mukherjee (i.e. ease of use for non-network savvy users).

62. As per claim 8, Hanzlik discloses ***The device of claim 7*** as is discussed above in the analysis of claim 7, but does not disclose ***wherein the functionality for identifying at least one of the two members of the group is auto-discovery logic***. However, Mukherjee discloses this additional limitation. As discussed above in the analysis of claim 6, it would be obvious to one skilled in the art to modify Hanzlik by adding a well-known auto-discovery means to determine other members of a group, where auto-discovery logic is one of the auto-discovery means well known in the art.

63. As per claim 16, Hanzlik discloses ***The network according to claim 15*** but does not disclose ***wherein the means for identifying each of the members of the group includes a registration request having a list of all of the autonomous systems in the group***. However, Mukherjee discloses these additional limitations. As discussed above in the analysis of claim 4, it would be obvious to one skilled in the art to modify Hanzlik to determine who gets added to a group member list that has been created on the policy server (pg. 5, [0060]), i.e. to identify group members, by using the member list information provided by a member node when first connecting to the policy server, allowing a member node the authority to determine who is an authorized member (Mukherjee, pg. 4, [0048]).

64. As per claim 17, Hanzlik discloses ***The network according to claim 16 [interpreted to mean claim 15]***, as discussed above in the analysis of claim 16, but does not disclose

wherein the means for identifying each of the members of the group includes auto-discovery means. However, Mukherjee discloses this additional limitation. As discussed above in the analysis of claim 6, it would be obvious to one skilled in the art to add a well-known auto-discovery means to populate determine other members of a group.

Conclusion

65. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mitra Tashakkori whose telephone number is 571-272-9069. The examiner can normally be reached on Mon-Thurs 8:30am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frantz Coby can be reached on 571-272-4017. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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